# Java Solutions for Practical Test

## 1. Cost of Renting a Car

import java.util.Scanner;  
  
public class CarRentalCost {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 final int ECONOMY\_RATE = 10, STANDARD\_RATE = 20, LUXURY\_RATE = 40;  
  
 System.out.print("Enter the number of rental days: ");  
 int days = scanner.nextInt();  
  
 System.out.print("Enter the type of car (Economy, Standard, Luxury): ");  
 String carType = scanner.next();  
  
 double totalCost = 0;  
  
 switch (carType.toLowerCase()) {  
 case "economy":  
 totalCost = days \* ECONOMY\_RATE;  
 break;  
 case "standard":  
 totalCost = days \* STANDARD\_RATE;  
 break;  
 case "luxury":  
 totalCost = days \* LUXURY\_RATE;  
 break;  
 default:  
 System.out.println("Invalid car type.");  
 System.exit(0);  
 }  
  
 if (days > 3) {  
 totalCost \*= 0.95; // Apply a 5% discount  
 }  
  
 System.out.printf("The total cost of renting a car is: $%.2f%n", totalCost);  
 }  
}

## 2. Calories Burned During Workout

import java.util.Scanner;  
  
public class CaloriesBurned {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 System.out.print("Enter the type of exercise (Running, Cycling, Yoga): ");  
 String exerciseType = scanner.next();  
  
 System.out.print("Enter your weight in kg: ");  
 double weight = scanner.nextDouble();  
  
 System.out.print("Enter the duration of exercise in minutes: ");  
 int duration = scanner.nextInt();  
  
 if (duration < 5) {  
 System.out.println("Duration is too short to be productive.");  
 return;  
 }  
  
 double caloriesBurned = 0;  
 switch (exerciseType.toLowerCase()) {  
 case "running":  
 caloriesBurned = 0.2 \* weight \* duration;  
 break;  
 case "cycling":  
 caloriesBurned = 0.04 \* weight \* duration;  
 break;  
 case "yoga":  
 caloriesBurned = 0.02 \* weight \* duration;  
 break;  
 default:  
 System.out.println("Invalid exercise type.");  
 return;  
 }  
  
 System.out.printf("You burned %.2f calories.%n", caloriesBurned);  
 }  
}

## 3. Concert Ticket Sales

import java.util.Scanner;  
  
public class ConcertTickets {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 final int NORMAL\_PRICE = 20, VIP\_PRICE = 40;  
  
 System.out.print("Enter the number of tickets: ");  
 int tickets = scanner.nextInt();  
  
 System.out.print("Enter the type of ticket (Normal, VIP): ");  
 String ticketType = scanner.next();  
  
 int pricePerTicket = ticketType.equalsIgnoreCase("VIP") ? VIP\_PRICE : NORMAL\_PRICE;  
 double totalCost = tickets \* pricePerTicket;  
  
 if (tickets > 4) {  
 totalCost \*= 0.9; // Apply 10% discount  
 }  
  
 System.out.printf("Total cost: $%.2f%n", totalCost);  
  
 if (totalCost > 300) {  
 System.out.println("Congratulations! You are a premium customer.");  
 }  
 }  
}

## 4. Loan Qualification

import java.util.Scanner;  
  
public class LoanQualification {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 System.out.print("Enter your annual income: ");  
 double annualIncome = scanner.nextDouble();  
  
 System.out.print("Enter your credit score: ");  
 int creditScore = scanner.nextInt();  
  
 System.out.print("Enter the loan amount: ");  
 double loanAmount = scanner.nextDouble();  
  
 if (annualIncome >= 10000 && creditScore >= 500 && loanAmount <= 4 \* annualIncome) {  
 System.out.println("Loan approved.");  
 } else {  
 System.out.println("Loan not approved.");  
 }  
 }  
}

## 5. Flight Booking

import java.util.Scanner;  
  
public class FlightBooking {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 System.out.print("Enter destination type (Domestic, International): ");  
 String destinationType = scanner.next();  
  
 System.out.print("Enter travel class (Economy, Business): ");  
 String travelClass = scanner.next();  
  
 double ticketCost = 0;  
  
 if (destinationType.equalsIgnoreCase("Domestic")) {  
 ticketCost = travelClass.equalsIgnoreCase("Business") ? 300 : 100;  
 } else if (destinationType.equalsIgnoreCase("International")) {  
 ticketCost = travelClass.equalsIgnoreCase("Business") ? 1000 : 600;  
 } else {  
 System.out.println("Invalid destination type.");  
 return;  
 }  
  
 System.out.print("Are you booking 2 days in advance? (yes/no): ");  
 String advanceBooking = scanner.next();  
  
 if (advanceBooking.equalsIgnoreCase("yes")) {  
 ticketCost \*= 0.9; // Apply 10% discount  
 }  
  
 System.out.printf("The ticket cost is: $%.2f%n", ticketCost);  
 }  
}

## 6. Package Delivery Cost

import java.util.Scanner;  
  
public class PackageDelivery {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.in);  
  
 System.out.print("Enter the package weight in kg: ");  
 double weight = scanner.nextDouble();  
  
 if (weight > 4) {  
 System.out.println("Weight exceeds the limit. Undeliverable.");  
 return;  
 }  
  
 System.out.print("Enter delivery type (Local, International): ");  
 String deliveryType = scanner.next();  
  
 double cost = 0;  
  
 if (deliveryType.equalsIgnoreCase("Local")) {  
 cost = weight <= 1 ? 2 : 4;  
 } else if (deliveryType.equalsIgnoreCase("International")) {  
 if (weight <= 4) {  
 cost = 10;  
 } else if (weight <= 15) {  
 cost = 40;  
 } else {  
 cost = 80;  
 }  
 } else {  
 System.out.println("Invalid delivery type.");  
 return;  
 }  
  
 System.out.printf("The delivery cost is: $%.2f%n", cost);  
 }  
}